ĐẠI HỌC QUỐC GIA HÀ NỘI **TRƯỜNG ĐẠI HỌC KINH TÉ**

Số: 3111/QĐ-ĐHKT

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc

Hà Nội, ngày 30 tháng 🖇 năm 2023

QUYÉT ĐỊNH

Về việc ban hành đề cương học phần Các công cụ có thu nhập <u>cố định</u> (03 tín chỉ) - Mã học phần: FIB3070

HIỆU TRƯỞNG TRƯỜNG ĐẠI HỌC KINH TẾ

Căn cứ Quyết định số 290/QĐ-TTg ngày 06/3/2007 của Thủ tướng Chính phủ về việc thành lập Trường Đại học Kinh tế thuộc Đại học Quốc gia Hà Nội;

Căn cứ Quyết định số 3568/QĐ-ĐHQGHN, ngày 08/10/2014 của Giám đốc Đại học Quốc gia Hà Nội về việc ban hành Quy định về Tổ chức và hoạt động của các đơn vị thành viên và đơn vị trực thuộc Đại học Quốc gia Hà Nội;

Căn cứ Nghị Quyết số 15/NQ-HĐTĐHKT ngày 16 tháng 12 năm 2022 của Hội đồng Trường Đại học Kinh tế về việc ban hành Quy chế tạm thời về tổ chức và hoạt động của Trường Đại học Kinh tế - Đại học Quốc gia Hà Nội;

Căn cứ Quyết định số 3626/QĐ-ĐHQGHN ngày 21/10/2022 của Giám đốc Đại học Quốc gia Hà Nội về việc ban hành Quy chế Đào tạo đại học của Đại học Quốc gia Hà Nội;

Căn cứ Hướng dẫn số 775/ĐT ngày 11/08/2006 của Giám đốc Đại học Quốc gia Hà Nội về việc xây dựng đề cương môn học phù hợp với phương thức đào tạo theo tín chỉ;

Căn cứ Công văn số 2543/ĐHQGHN-ĐT ngày 26/7/2013 của Giám đốc Đại học Quốc gia Hà Nội về việc xây dựng để cương môn học;

Theo đề nghị của Trưởng phòng Đào tạo và Trưởng Khoa Tài chính - Ngân hàng,

QUYÉT ĐỊNH:

Điều 1. Ban hành đề cương học phần *Các công cụ có thu nhập cố định*, 03 tín chỉ, mã học phần: *FIB3070*, tiếng Anh, bậc đào tạo đại học, do TS. Nguyễn Thị Nhung biên soạn *(đề cương kèm theo Quyết định này)*.

Điều 2. Quyết định này có hiệu lực kể từ ngày ký. Trưởng phòng Đào tạo, Trưởng các phòng chức năng có liên quan, Trưởng Khoa Tài chính - Ngân hàng, Lãnh đạo các Khoa/Viện chịu trách nhiệm thi hành Quyết định này.

Nơi nhận:

- Như điều 2:

- Luu: VT, N2.

HEN TRƯỞNG

ĐẠI HỌC KINH TẾ

Le Trung Thành

SYLLABUS: FIXED INCOME SECURITIES

(Kèm theo Quyết định số 3111/ĐHKT-ĐT ngày 30 tháng 8 năm 2023)

1. INSTRUCTION INFORMATION

1.1. Nguyễn Thị Nhung

- Status : PhD, Lecturer

- Office : Faculty of Economics and Business - Room

512, E4 Building, 144 Xuân Thủy, Cầu Giấy,

Hà Nôi.

- Tel : 0962 896 668

Main research directions : Securities markets, risk management in banks,

and finance for sustainable development.

1.2. Vũ Thị Loan

- Status : PhD, Lecturer

- Office : Faculty of Economics and Business - Room

512, E4 Building, 144 Xuân Thủy, Cầu Giấy,

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Hà Nội.

Tel : 0974 943 069

- Main research directions : Machine learning, financial behaviors, financial

investment.

1.3. Lê Trung Thành

- Status : Assoc. PhD, Lecturer

- Office : Faculty of Economics and Business - Room

512, E4 Building, 144 Xuân Thủy, Cầu Giấy,

Hà Nội.

- Tel : 0913590678

- Main research directions : Finance management, strategic planning, locat

budget management, financial investments and

risk management.

1.4. Tô Lan Phương

- Status : Assoc. PhD, Lecturer

- Office : Faculty of Economics and Business - Room

512, E4 Building, 144 Xuân Thủy, Cầu Giấy,

Hà Nội.

Tel : 0919471896

- Main research directions : Cash flow management, corportate finance

management, credit ranking and analysis,

corporate valuation, green finance and behavioral finance.

2. COURSE INFORMATION

- Subject : FIXED INCOME SECURITIES

- Code of Subject : FIB 3069

- Number of credits : 3

Education degree : Bachelor's DegreePrerequisites : Corporate finance

- Teaching language : English

- Credit hours : 03 (45 hours)

- Responsible department: Department of Investments, Room No.712, E4 Building, 144 Xuan Thuy, Cau Giay, Hanoi.

3. COURSE OBJECTIFS

The module helps students understand the basics of fixed income securities, including: (i) the concept of fixed-income securities; (ii) classification and specifications of fixed income securities; (iii) interest risks and terms structures; (iv) credit analysis; and (v) methods of valuating debt securities. Based on basic knowledge, students can distinguish different fixed-income securities, risks embelled to fixed income securites, methods used to measure these risks, and approaches of pricing fixed income securites (including discounted cash flow methods and no-arbitrage approaches). In addition, students can apply different methods to measure risks embelled to fixed income securites and price different fixed income securities.

4. LEARNING OUTCOME

4.1. Knowledge

| Course's Learning Outcome | Program's Learning Outcome | Level | Details |
|---------------------------------|----------------------------|-------|---|
| CLO1 | PLO3.1 | 1 | Students have the ability to remember the nature of fixed income securities, identify risks embelled to fixed income securities, methods of measuring these risks and pricing fixed income securities |
| CLO2 | | , 2 | Students have the ability to classify fixed income securities, risks embelled |

| Course's Learning Outcome | Program's Learning Outcome | Level | Details |
|---------------------------|----------------------------|-------|--|
| | | | to fixed income securites, understand methods used to measure risks and price fixed income securites. |
| | PLO3.2 | | Students have the ability to apply different methods for measuring risks embelled to fixed income securities and pricing fixed income securities |
| CLO3 | PLO3.3 | 3 | Students have the ability to collect information or financial data, and then apply different theorical frameworks to identify, analyze risks embelled to fixe income securities in Vietnam, as well as to evaluate them. |

4.2. Skills

Including professional skills and supplementary skills

| Course's Learning Outcome | Program's Learning Outcome | Level | Details |
|---------------------------------|----------------------------|-------|---|
| CLO4 | PLO4.1 | 3 | Students have the ability to manage time and different resources, and be a leader in an organization. |
| CLO5 | PLO4.3 | 3 | Students have the ability to develop skills in teamworking, cooperation and communication skills. |

4.3. Self-reliance and responsibility

Including: Personal ethical qualities, professional and social ethical qualities

| Course's Learning Outcome | Program's Learning Outcome | Level | Details | |
|---------------------------------|----------------------------|-------|--|--|
| CLO6 | PLO6.1 | 3 | Students can understand the professional principles that a financial officer or traders needs to follow in the capital market, including | |

| Course's Learning Outcome | Program's Learning Outcome | Level | Details |
|---------------------------------|----------------------------|-------|---|
| | | | principles of information transparency and for the common interest of markets. |
| CLO7 | PLO6.2 | 3 | Students can work with high discipline, know how to respect the law, have an active lifestyle and a sense of community |
| CLO8 | PLO6.3 | 3 | Students can work independently of in a team, self-study and develop their creativity to improve their performance and adapt to different working environments. |

5. SUMMARY

This course provides a basic knowledge about fixed income securities, helping students remember, identify, and understand specifications of each kind of fixed-income securities as well their pros and cons of each. Moreover, interest risks and credit risks are analyzed in different aspects, such as term structures, credit scoring models and methods used to measure risks. Furthermore, this subject also gives fundamentals about valuation of fixed income securities with two methods, including traditional method and no-arbitrage method. All the above-mentionned contents are presented in 5 chapters, including: (i) Overview about fixed income securities; (ii) Risk associated with investing in bonds; (iii) Interest risk and terms structures; (iv) Credit analysis; and (v) Methods of valuating fixed income securities. To be precise, chapter 1

Besides, students can develop different skills such as time management, leadership, and sense of teamwork. In addition, students can understand the professional principles, regulations, work with high discipline and develop a sense of comunity. In particular, students also can work idependently or in a team very well.

6. COURSE CONTENTS

CHAPTER 1: OVERVIEW ABOUT FIXED INCOME SECURITIES

1.1. Basic concepts

- 1.1.1. Fixed income securities
- 1.1.2. Features of fixed income securities
- 1.1.3. Terms of fixed income securities

- 1.1.4. Markets of fixed income securities
- 1.2. Classification of fixed income securities
 - 1.2.1. Government bonds
 - 1.2.2. Local government bonds
 - 1.2.3. Corporate bonds
 - 1.2.4. Bonds with options
 - 1.2.5. Asset-backed securities
 - 1.2.6. Mortgage obligations

CHAPTER 2: RISKS ASSOCIATED WITH INVESTING IN BONDS

- 2.1. Introduction
 - 2.1.1. Overview about bonds
 - 2.1.2. Overview about risks and bonds-related risks
- 2.2. Classification of risks
 - 2.1. Interest rate risk
 - 2.2. Credit risk
 - 2.3. Liquidity risk
 - 2.4. Other risks

CHAPTER 3: INTEREST RISK AND TERM STRUCTURES

- 3.1. Risks of interest rate
 - 3.1.1. Background
 - 3.1.2. Factors influencing risk of interest rate
- 3.2. Measuring risks of interest rate
 - 3.2.1. Overview about interest risk
 - 3.2.2. Methods used to measure interest risk
- 3.3. Term structures
 - 3.3.1. Theoretical spot rate curve for treasuries
 - 3.3.2. Spot rate and forward rate
 - 3.3.3. Theories about term structures

CHAPTER 4: CREDIT ANALYSIS

4.1. Introduction

- 4.1.1. Definition of credit analysis
- 4.1.2. General principles of credit analysis

4.2. Traditional approach of credit analysis

- 4.2.1. Analysis of collateral
- 4.2.2. Analysis of loan terms
- 4.2.3. Analysis of firms

4.3. Credit scoring models

- 4.3.1. Credit scoring process
- 4.3.2. Measuring crdit risks

CHAPTER 5: METHODS OF VALUATING FIXED INCOME SECURITIES

- 5.1. Fundamentals about valuation of fixed income securities
 - 5.1.1. Characteristics of fixed income securities
 - 5.1.2. Principles of valuating fixed income securities
- 5.2. Methods of pricing fixed income securities
 - 5.2.1. Traditional method
 - 5.2.1. No-arbitrage method

7. TEXTBOOK S AND REFERENCES

7.1. Textbook

- 1. Fabozzi F.J (2005), The Handbook of Fixed Income Securities, McGraw Hill.
- 2. Fabozzi F.J (2020), Fixed Income Analysis workbook, Wiley & Sons
- 3. Trần Thị Thái Hà (2009), Các thị trường và định chế tài chính, NXB ĐHQGHN.

7.2. References

 Martellini L., Priaulet P., Priaulet S. (2003), Fixed-income securities: valuation, risk management, and portfolio strategies, Wiley 5. Bruce, T., Angel, S. (2020), Fixed Income Securities: Tools for Today's Markets, 3rd Edition, John Wiley

8. COURSE SCHEDULE

8.1. General Schedule

| 1. Gen | eral Schedule | Teach | ing methods | Total | |
|--------|--|--------|----------------------------|-------|--------------|
| Week | Contents | Theory | Discussion/ Assignement | | Notes |
| 1 | Chapter 1: Overview about fixed income securities | 2 | 1 | 3 | |
| 2 | Chapter 2: Risks associated with investing in bonds | 3 | 0 | 3 | Online |
| 3 | Chapter 2: Risks associated with investing in bonds (cont.) | 2 | 1 | 3 | Assignment 2 |
| 4 | Chapter 3: Interest risk and term structures | 3 | 0 | 3 | |
| 5 | Chapter 3: Interest risk and term structures (cont.) | 3 | 0 | 3 | |
| 6 | Chapter 3: Interest risk and term structures (cont.) | 2 | 1 | 3 | Assignment 2 |
| 7 | Chapter 4: Credit analysis | 3 | 0 | 3 | Online |
| 8 | Chapter 4: Credit analysis (cont.) | 3 | 0 | 3 | Online |
| 9 | Chapter 4: Credit analysis (cont.) | 2 | 1 | 3 | Online |
| 10 | Revision and Mid-term exam | 1 | 2 | 3 | |
| 11 | Chapter 5: Methods of valuating fixed income securities | 2 | 1 | 3 | |
| | Chapter 5: Methods of valuating fixed income securities (cont.) | 2 | 1 | 3 | |
| 12 | Chapter 5: Methods used to valuate fixed income securities (cont.) | 2 | 1 | 3 | Assignment 3 |
| 13 | | 0 | 3 | 3 | |
| 14 | Presentation | 0 | 3 | 3 | |
| 15 | Presentation | | | 45 | |
| | Total | 30 | 15 | 43 | |

8.2. Detail Schedule

| Week 1: Chapter 1. Overview | about fixed | income securities |
|-----------------------------|-------------|-------------------|
|-----------------------------|-------------|-------------------|

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|---------------------------|-----------|---|--|---|------|
| Theory: 2 credit hours | Classroom | Basic concepts Classification of fixed income securities | Read chapter 1, TEXTBOOK 1, p.1-16 Read chapter 1, TEXTBOOK 2, | | |
| Assignment: 1 credit hour | Classroom | 3. Discussion about specification of fixed income securities | p.2-7. Read chapter 3, TEXTBOOK 2, p.15-21. Read chapter 6, TEXTBOOK 3, p. 213-245 | | |

Week 2: Chapter 2. Risks associated with investing in bonds

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|------------------------------|--------|---|---|---|------|
| Theory: 3 credit hours | Online | Introduction about risks associated with investing in bonds | Read chapter 2, TEXTBOOK 1, p.17-36 Read chapter 2, TEXTBOOK 2, | - CLO1, CLO2, CLO4, CLO6, CLO7, CLO8. | |
| Assignment: 0 credit hour | | | p.8-14 Read chapter 6, TEXTBOOK 3, p. 213-245 | | |

Week 3: Chapter 2. Risks associated with investing in bonds (Cont.)

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|------------------------------|-----------|--|---|---|------|
| Theory: 2 credit hours | Classroom | Different risks: interest rate risk, credit risk, liquidity risk and other risks | Read chapter 15, TEXTBOOK 1, p.421-456 Read chapter 2, TEXTBOOK 2, p.8-14. | CLO6, CLO7, CLO8. | |
| Assignment: 1 credit hour | | Discussion about risks associated with investing in bonds | - Read chapter 6, TEXTBOOK 3, p. 213-245 | | |

Week 4: Chapter 3. Interest risk and term structures

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|--|-----------|---------------------------|--|---|------|
| Theory: 3 credit hours Assignment: 0 credit hour | Classroom | 1. Risks of interest rate | Read chapter 4, TEXTBOOK 1, p.74-92 Read chapter 6, TEXTBOOK 1, p.119-156 Read chapter 7, TEXTBOOK 1, p.157-184 Read chapter 8, TEXTBOOK 1, p.185-214 Read chapter 7 and 8, TEXTBOOK 2, p. 41-54 Read chapter 6, TEXTBOOK 3, p. 213-245 | CLO7, CLO8. | |

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|---------------------------|----------------|----------------------------------|---|---|------|
| Theory: 3 credit hours | Classroom | Measuring risks of interest rate | - Read chapter 4, TEXTBOOK 1, p.74-92 | | |
| Assignment: 0 credit hour | | | Read chapter 6, TEXTBOOK 1, p.119-156 Read chapter 7, TEXTBOOK 1, p.157-184 Read chapter 8, TEXTBOOK 1, p.185-214 Read chapter 7 and 8, TEXTBOOK 2, p. 41-54 Read chapter 6, TEXTBOOK 3, p. 213-245 | | |
| Week 6: Chap | ter 3. Interes | st risk and term structures (| | | |
| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
| Theory: 2 credit hours | Classroom | 1. Term structures | - Read chapter 4, TEXTBOOK 1, p.74-92 | - CLO1, CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8. | |
| Assignment: | Classroom | 2. Discussion about factors | - Read chapter 6, TEXTBOOK 1, | CLO3, CLO3, CLO7, CLO8. | |

p.119-156

influencing volatility of

2.1 HO-W

1 credit hour

| | interest rate, theories | - Read chapter 7, TEXTBOOK 1, | |
|--------|-------------------------|-------------------------------|--|
| , | about term structures | p.157-184 | |
| | 3. Assignment 2 | - Read chapter 8, TEXTBOOK 1, | |
| | | p.185-214 | |
| 1994 V | | - Read chapter 7 and 8, | |
| .3 | | TEXTBOOK 2, p. 41-54 | |
| | | - Read chapter 6, TEXTBOOK 3, | |
| | 1000 | p. 213-245 | |

| Teaching Method | Place | Contents | | Requirement for students | Kı | nowledge are re | tills that d to have | | Note |
|---------------------------|--------|---|---|---|----|----------------------|-------------------------|-------|------|
| Theory: 3 credit hours | Online | Introduction about credit analysis Traditional approach of credit analysis | | Read chapter 15, TEXTBOOK 1, p.421-456 Read chapter 15, TEXTBOOK 2, pp. 106-113. | | CLO1, Cl CLO7, CL | CLO4, | CLO6, | |
| Assignment: 0 credit hour | | | - | Read chapter 6, TEXTBOOK 3, p. 213-245 | | | | | |

Week 8: Chapter 4. Credit analysis (Cont.)

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|------------------------|--------|--------------------------|--|---|------|
| Theory: 3 credit hours | Online | 1. Credit scoring models | - Read chapter 15, TEXTBOOK 1, p.421-456 | - CLO1, CLO2, CLO4, CLO6, CLO7, CLO8. | |
| Assignment: | | | | | |

| 0 credit hour | | | Read chapter 15, TEXTBOOK 2, pp. 106-113 Read chapter 6, TEXTBOOK 3, p. 213-245 | | |
|---------------------------|---------------|--|---|---|------|
| Week 9: Cha | pter 4. Credi | t analysis (Cont.) | | | |
| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
| Theory: 2 credit hours | Online | Credit scoring models | - Read chapter 15, TEXTBOOK 1, p.421-456 | | |
| Assignment: 1 credit hour | Online | 2. Do exercices about measuring credit risks3. Assignment 1 | Read chapter 15, TEXTBOOK 2, pp. 106-113. Read chapter 6, TEXTBOOK 3, p. 213-245 | 0200, 0200, 0200. | |
| Week 10: Rev | ision and Mi | d-term exam | | | |
| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
| Theory: 2 credit hours | Classroom | 1. Revision | - Read chapter 1, 4, 6, 7, 8, 15, TEXTBOOK 1, p.157-184 | - CLO1, CLO2, CLO3, CLO4, CLO6, CLO7, CLO8. | |
| Assignment: 2 credit hour | Classroom | 2. Mid-term exam | - Read chapter 6, TEXTBOOK 3, p. 213-245 | 223, 2237, 2233. | |

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|------------------------------|---------------|--|--|---|------|
| Theory: 2 credit hours | Classroom | Fundamentals about valuation of fixed income securities | Read chapter 5, TEXTBOOK 1, p.97-118 Read chapter 5, TEXTBOOK 2, | - CLO1, CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8. | |
| Assignment: 1 credit hour | Classroom | 2. Discussion about fundamentals about valuation of fixed income securities | p.15-21.Read chapter 6, TEXTBOOK 3,p. 213-245 | | |
| Week 12: Cha | pter 5. Meth | ods of valuating fixed incom | e securities (Cont.) | | |
| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
| Theory: 2 credit hours | Classroom | Traditional methods of pricing fixed income securities | Read chapter 5, TEXTBOOK 1, p.97-118 Read chapter 5, TEXTBOOK 2, | CLO5, CLO6, CLO7, CLO8. | |
| Assignment: 1 credit hour | Classroom | 2. Do exercices about pricing fixed income securities by using traditional methods | p.15-21 Read chapter 6, TEXTBOOK 3, p. 213-245 | | |
| Week 13: Cha | apter 4. Meth | ods of valuating fixed incon | ne securities (Cont.) | | |
| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |

| Theory: 2 | Classroom | 1. No-arbitrage method of | - Read chapter 5, TEXTBOOK 1, - CLO1, CLO2, CLO3, CLO4, |
|---------------|-----------|---------------------------|---|
| credit hours | | pricing fixed income | p.97-118 CLO5, CLO6, CLO7, CLO8. |
| | | securities | - Read chapter 5, TEXTBOOK 2, |
| Assignment: | Classroom | 2. Do exercices about | p.15-21. |
| 1 credit hour | | pricing fixed income | - Read chapter 6, TEXTBOOK 3, |
| | | securities by using no- | p. 213-245 |
| | | arbitrage methods | |

Week 14: Presentation

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|--|-----------|--------------------------|---------------------------------|---|------|
| Assignment: | Classroom | 1. Students present and | - Students are required to seek | - CLO1, CLO2, CLO3, CLO4, | |
| 3 credit hour | | discuss their case study | information about the | CLO5, CLO6, CLO7, CLO8. | |
| | | about fixed income | Vietnamese bond market | 8.7 | |
| | | securities in Vietnam | (including government bond | <i>y</i> = | |
| | | | market and corporate bond | | |
| | | | market). | 1 DE 1 | |
| = = | 7.0 | | - Students are required to | 9.5 | |
| 10 | | | prepare presentations about the | , , | |
| | | 210 | Vietnamese bond market | | |
| | | | (including government bond | | |
| North and the second se | | | market and corporate bond | | |
| | | | market) | | |

Week 15: Presentation

| Teaching Method | Place | Contents | Requirement for students | Knowledge and skills that students are required to have | Note |
|--------------------|------------|--------------------------|---------------------------------|---|------|
| Assignment: | Classroom | 1. Students present and | - Students are required to seek | - CLO1, CLO2, CLO3, CLO4, | |
| 3 credit hour | | discuss their case study | information about the | CLO5, CLO6, CLO7, CLO8. | her |
| | | about fixed income | Vietnamese bond market | | |
| | Day of the | securities in Vietnam | (including government bond | | |
| H + | | | market and corporate bond | | |
| | | | market). | | |
| | | | - Students are required to | | |
| 200 | | | prepare presentations about the | | |
| | | | Vietnamese bond market | | |
| | | | (including government bond | | |
| | | 01 | market and corporate bond | A s | |
| | | | market) | | |

9. TEACHING METHODS AND ASSESSMENT

9.1. Teaching methods

| No. | CODE | Group of teaching and learning methods | Detailed description | |
|-----|--------|--|---|--|
| I | Direct | teaching methods | | |
| 1 | PP1 | Specific explanation | Instructors will guide and explain aspects of the lesson content, helping students to gain knowledge and skills. | |
| 2 | PP2 | Lectures | The instructor will present the lecture details and the student's responsibility is to listen and record what is needed to gain knowledge. | |
| П | Method | ds of teaching and learn | ing brain stimulation (Indirect teaching) | |
| 3 | PP3 | Problem solving | Students must use deep and logical thinking to recognize and solve the problems between the current situation and the desired goal, thereby, learning new knowledge while facing and solving problems. | |
| 4 | PP4 | Case Study | Instructors design tasks based on cases/situations, asking students to solve, thereby helping students develop problemsolving, decision-making skills as well as research skills. | |
| Ш | Intera | ctive teaching method | | |
| 5 | PP5 | Discussion | Students are divided into groups and give opinions on the problem the teacher has raised before. This method helps students analyze definitions, ideas, data about the topic and discuss with teachers, thereby connecting ideas and clarifying problems. | |
| 6 | PP6 | Group study | Students are divided into small groups to solve the given problem. | |
| IV | Indepe | ndent teaching method | | |
| 7 | PP7 | Read and study materials | This method develops students' self-study ability to prepare lessons before each class and review lessons after class. | |
| 8 | PP8 | Exercises/Homework | Students are required to complete the teacher's assignments at home | |

(In addition to the suggested methods above, teachers can add other teaching methods suitable for the course)

9.2 The compatibility between teaching and learning methods and learning outcomes

| Learning outcome | | | | |
|------------------|--|------------------|--|--|
| Learning Outcome | Details | Teaching Methods | | |
| Code | | | | |
| CLO1 | Students have the ability to remember the nature of fixed | | | |
| | income securities, identify risks embelled to fixed income | PP1=> | | |
| | securites, methods of measuring these risks and pricing | PP8 | | |
| | fixed income securities | | | |
| | Students have the ability to classify fixed income securities, | PP1=> | | |
| CLO2 | risks embelled to fixed income securites, understand | PP8 | | |
| | methods used to measure risks and price fixed income | | | |
| | securites. | | | |
| | Students have the ability to apply different methods for | PP1=> | | |
| CLO3 | measuring risks embelled to fixed income securites and | PP8 | | |
| | pricing fixed income securities. | | | |
| | In addition, students have the ability to collect information | | | |
| | or financial data, and then apply different theorical | | | |
| | frameworks to identify, analyze risks embelled to fixe | | | |
| | income securities in Vietnam, as well as to evaluate them. | | | |
| CLO4 | Students have the ability to manage time and different | PP7 | | |
| | resources, and be a leader in an organization. | | | |
| CLO5 | Students have the ability to develop skills in teamworking, | PP6 | | |
| | cooperation and communication skills. | | | |
| CLO6 | Students can understand the professional principles that a | PP5, PP6 | | |
| | financial officer or traders needs to follow in the capital | | | |
| | market, including principles of information transparency | | | |
| | and for the common interest of markets. | | | |
| CLO7 | Students can work with high discipline, know how to | PP6, PP | | |
| | respect the law, have an active lifestyle and a sense of | | | |
| 2 | community | | | |
| CLO8 | Students can work independently or in a team, self-study | PP1=> | | |
| | and develop their creativity to improve their performance | PP8 | | |
| and the second | and adapt to different working environments. | | | |

10. FORMS OF TESTING AND ASSESSEMENTS

10.1. Test forms

| Types of assessement | Testing content | Course's Learning Outcome | Percentage |
|------------------------------------|---|--|------------|
| Attendance | - Class participation points will be based on class attendance, contribution in class. | CLO 4, CLO6, CLO7, CLO8 | 5% |
| Individual assessement (Exercices) | - Assessment of student participation and learning attitude towards the course and pre-class preparation. | CLO1, CLO2, CLO3, CLO4, CLO6, CLO7, CLO8 | 10% |
| Group assignment | Students are divided into small groups and must solve assignment in advance at home under the guidance of lecturer. The group prepare the video presentation and submit for other watching before the class, prepare 3-5 questions to ask other students in class and also have to answer questions from other students. Assess students' cognitive ability and teamwork skills. Assess the ability to collect information, process documents to complete assignments by topic Assessment of written and presentation ability, ability to answer critical questions Assess the level of understanding and application of the knowledge of the course. | CLO 1, CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, and CLO8 | 10% |
| Mid-term exam | Mid-term exam is writen and closed-book examination. Assess how much the learner achieves the target percentage of knowledge, mainly level 1 and 2. | CLO 1, CLO2, CLO3, CLO4, CLO6, | 15% |

| Types of assessement | Testing content | Course's Learning Outcome | Percentage |
|----------------------|---|---------------------------------|--|
| | | CLO7, and | |
| | | CLO8 | |
| Final exam | - Final exam of 90 minutes. | CLO 1, | 60% |
| | - Evaluate the knowledge and general skills | CLO2, | The state of the s |
| | of students to achieve percentage of the | CLO3, | |
| | | CLO4, | |
| | | CLO6, | |
| | | CLO7, and | |
| | | CLO8 | |

10.2. Criteria used to assess students

10.2.1.Attendance and individual assessment: 5%

Assessement criteria:

| Grade | Criteria | | | | | | | |
|------------|------------------------|--|--|--|--|--|--|--|
| 9-10 | From 14 to 15 lectures | | | | | | | |
| 7- under 9 | From 10 to 13 lectures | | | | | | | |
| 5- under 7 | From 7 to 9 lectures | | | | | | | |
| Under 5 | Less than 7 lectures | | | | | | | |

10.2.2.Individual assessment: 10%

- There are 04 individual assignements
- Assessement criteria:

| Grade | Criteria | | | | | | |
|------------|---|--|--|--|--|--|--|
| 9-10 | Achieve all 7 CLO, including: CLO1, CLO2, CLO3, CLO4, | | | | | | |
| | CLO5, CLO6, CLO7, CLO8. | | | | | | |
| 7- under 9 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO5, | | | | | | |
| | CLO7, CLO8, and a part of CLO3. | | | | | | |
| 5- under 7 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO7, | | | | | | |
| | CLO8. | | | | | | |
| Under 5 | Unable to achieve 7 CLO, including: CLO1, CLO2, CLO4, | | | | | | |
| | CLO5, CLO6, CLO7, CLO8. | | | | | | |

10.2.3. Case study and group presentation: 10%

- Topics are delivered at the second week and presented at the 15th week.
- Assessement criteria:

| Grade | Criteria | | | | | | |
|---------------|---|--|--|--|--|--|--|
| 9-10 | Achieve all 8 CLO, including: CLO1, CLO2, CLO3, CLO4, | | | | | | |
| | CLO5, CLO6, CLO7, CLO8. | | | | | | |
| 7- under 9 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO5, | | | | | | |
| | CLO7, CLO8, and a part of CLO3. | | | | | | |
| 5- under 7 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO7, | | | | | | |
| | CLO8. | | | | | | |
| Under 5 | Unable to achieve 7 CLO, including: CLO1, CLO2, CLO4, | | | | | | |
| JULY STEHEN , | CLO5, CLO6, CLO7, CLO8. | | | | | | |

10.2.4.Mid-term exam: 15%

- Mid-term exam lasts at the 10th week.
- Mid-term exam covers chapters from 1 to 5.
- Assessement criteria:

| Grade | Criteria | | | | | | |
|------------|---|--|--|--|--|--|--|
| 9-10 | Achieve all 8 CLO, including: CLO1, CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8. | | | | | | |
| 7- under 9 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO5, CLO7, CLO8, and a part of CLO3. | | | | | | |
| 5- under 7 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO7, CLO8. | | | | | | |
| Under 5 | Unable to achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO5, CLO6, CLO7, CLO8. | | | | | | |

10.2.5.Final exam: 60%

- Exam contents are based on the final exam structure.
- Assessement criteria:

| Grade | Criteria | | | | | | |
|------------|---|--|--|--|--|--|--|
| 9-10 | Achieve all 8 CLO, including: CLO1, CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8. | | | | | | |
| 7- under 9 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO5, CLO7, CLO8, and a part of CLO3. | | | | | | |
| 5- under 7 | Achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO6, CLO7, CLO8. | | | | | | |
| Under 5 | Unable to achieve 7 CLO, including: CLO1, CLO2, CLO4, CLO5, CLO6, CLO7, CLO8. | | | | | | |

10.3. Assessment Schedule

Assignements

: As stated in the Syllabus

- Mid-term exam

: Week 10

Final exam

: Decided by the University

Preparer

Head of

Department

Dean of Faculty OUC Approved

TRUČNG DAI HOO

PhD. Nguyễn Thị

Nhung

PhD. Nguyễn Thị

Nhung

Assoc.Prof.

Assoc.Prot. Nguyễn Văn Hiệu Assoc.Prof. Lê

Trung Thành

11001

COURSE DESCRIPTION

1. Course name: FIXED INCOME SECURITIES

2. Course code: FIB 3069

3. Degree: Undergraduate level

4. Language: English

5. Number of credit: 03

6. Pre-requisite: Corporate Finance

7. Core course/Elective course: Core course

8. Faculty in charge of the course: Faculty of Finance and Banking

9. Course objectives:

The module helps students understand the basics of fixed income securities, including: (i) the concept of fixed-income securities; (ii) classification and specifications of fixed income securities; (iii) interest risks and terms structures; (iv) credit analysis; and (v) methods of valuating debt securities. Based on basic knowledge, students can distinguish different fixed-income securities, risks embelled to fixed income securites, methods used to measure these risks, and approaches of pricing fixed income securites (including discounted cash flow methods and no-arbitrage approaches). In addition, students can apply different methods to measure risks embelled to fixed income securites and price different fixed income securities.

10. Summary:

This course provides a basic knowledge about fixed income securities, helping students remember, identify, and understand specifications of each kind of fixed-income securities as well their pros and cons of each. Moreover, interest risks and credit risks are analyzed in different aspects, such as term structures, credit scoring models and methods used to measure risks. Furthermore, this subject also gives fundamentals about valuation of fixed income securities with two methods, including traditional method and no-arbitrage method. All the above-mentionned contents are presented in 5 chapters, including: (i) Overview about fixed income securities; (ii) Risk associated with investing in bonds; (iii) Interest risk and terms structures; (iv) Credit analysis; and (v) Methods of valuating fixed income securites. To be precise, chapter 1

Besides, students can develop different skills such as time management, leadership, and sense of teamwork. In addition, students can understand the professional principles, regulations, work with high discipline and develop a sense of comunity. In particular, students also can work idependently or in a team very well.

11. Credit hours: 45

12. Teaching methods

| No. | CODE | Group of teaching and | Detailed description | | | | | | |
|------|----------|--|---|--|--|--|--|--|--|
| 140. | CODE | learning methods | Detailed description | | | | | | |
| I | Direct t | eaching methods | | | | | | | |
| 1 | PP1 | Specific explanation | Instructors will guide and explain aspects of the lesson content, helping students to gain knowledge and skills. | | | | | | |
| 2 | PP2 | Lectures | The instructor will present the lecture details and the student's responsibility is to listen and record what is needed to gain knowledge. | | | | | | |
| II | Method | s of teaching and learni | ng brain stimulation (Indirect teaching) | | | | | | |
| 3 | PP3 | Problem solving | Students must use deep and logical thinking to recognize and solve the problems between the current situation and the desired goal, thereby, learning new knowledge while facing and solving problems. | | | | | | |
| 4 | PP4 | Case Study Instructors design tasks based cases/situations, asking students to thereby helping students develop prosolving, decision-making skills as we research skills. | | | | | | | |
| III | Interac | ctive teaching method | | | | | | | |
| 5 | PP5 | Discussion | Students are divided into groups and give opinions on the problem the teacher has raised before. This method helps students analyze definitions, ideas, data about the topic and discuss with teachers, thereby connecting ideas and clarifying problems. | | | | | | |
| 6 | PP6 | Group study | Students are divided into small groups to solve the given problem. | | | | | | |
| IV | Indepe | endent teaching method | | | | | | | |
| 7 | PP7 | Read and study materials | This method develops students' self-study ability to prepare lessons before each class and review lessons after class. | | | | | | |
| 8 | PP8 | Exercises/Homework | Students are required to complete the teacher's assignments at home | | | | | | |

(In addition to the suggested methods above, teachers can add other teaching methods suitable for the course)

13. Assessment

Class attendance and individual assessement: 15%

Group assignment: 10% Mid-Term exam: 15%

Final exam: 60%

14. Required materials

- 1. Fabozzi F.J (2005), The Handbook of Fixed Income Securities, McGraw Hill.
- 2. Fabozzi F.J (2020), Fixed Income Analysis workbook, Wiley & Sons.
- 3. Trần Thị Thái Hà (2009), Các thị trường và định chế tài chính, NXB ĐHQGHN.

Dean of Faculty

Head of Department

Assoc.Prof. Nguyễn Văn Hiệu

PhD. Nguyễn Thị Nhung

TRƯỜNG ĐẠI HỌC KINH TÉ - ĐHQGHN KHOA TÀI CHÍNH NGÂN HÀNG

BÀI TẬP TÌNH HƯỚNG SỐ 1

Môn học: Fixed Income Securities

Following are U.S. Treasury benchmarks available on December 31, 2007:

| US/T 3.125 11/30/2009 | 3.133 |
|-----------------------|-------|
| US/T 3.375 11/30/2012 | 3.507 |
| US/T 4.25 11/15/2017 | 4.096 |
| US/T 4.75 02/15/2037 | 4.518 |

On the same day, the following trades were executed:

| Issuer | Issue | Yield (%) |
|--------------------------|---------------------|-----------|
| Time Warner Cable Inc. | TWC 6.55 05/01/2037 | 6.373 |
| McCormick & Co. Inc. | MKC 5.75 12/15/2017 | 5.685 |
| Goldman Sachs Group Inc. | GS 5.45 11/01/2012 | 4.773 |

Based on the above, complete the following table:

| Issue | Yield | Treasury | Benchmark | Relative Yield | Yield |
|---------------------|-------|-----------|--------------|----------------|-------|
| 10040 | (%) | Benchmark | Spread (bps) | Spread | Ratio |
| TWC 6.55 05/01/2037 | 6.373 | | | | |
| MKC 5.75 12/15/2017 | 5.685 | | | | |
| GS 5.45 11/01/2012 | 4.773 | | | | E) 07 |

TRƯỜNG ĐẠI HỌC KINH TÉ - ĐHQGHN KHOA TÀI CHÍNH NGÂN HÀNG

BÀI TẬP TÌNH HƯỚNG SỐ 2

Môn học: Fixed Income Securities

You observe the yields of the following Treasury securities (all yields are shown on a bond-equivalent basis):

| Year | Yield to Maturity | Spot Rate | Year | Yield to Maturity | Spot Rate |
|----------|-------------------|-----------|------------|-------------------|-----------|
| (Period) | (%) | (%) | (Period) | (%) | % |
| 0.5 (1) | 5.25 | 5.25 | 5.5 (11) | 7.75 | 7.97 |
| 1.0 (2) | 5.50 | 5.50 | 6.0 (12) | 8.00 | 8.27 |
| 1.5 (3) | 5.75 | 5.76 | 6.5 (13) | 8.25 | 8.59 |
| 2.0 (4) | 6.00 | ? | 7.0 (14) | 8.50 | 8.92 |
| 2.5 (5) | 6.25 | ? | 7.5 (15) | 8.75 | 9.25 |
| 3.0 (6) | 6.50 | ? | 8.0 (16) | 9.00 | 9.61 |
| 3.5 (7) | 6.75 | ? | 8.5 (17) | 9.25 | 9.97 |
| 4.0 (8) | 7.00 | ? | 9.0 (18) | 9.50 | 10.36 |
| 4.5 (9) | 7.25 | ? | 9.5 (19) | 9.75 | 10.77 |
| 5.0 (10) | 7.50 | ? | 10.00 (20) | 10.00 | 11.20 |

All the securities maturing from 1.5 years on are selling at par. The 0.5 and 1.0-year securities are zero-coupon instruments. Answer the below questions.

- 1. Calculate the missing spot rates.
- 2. What should the price of a 6% six-year Treasury security be?
- 3. What is the six-month forward rate starting in the sixth year?

TRƯỜNG ĐẠI HỌC KINH TÉ - ĐHQGHN KHOA TÀI CHÍNH NGÂN HÀNG

BÀI TẬP TÌNH HƯỚNG SỐ 3

Môn học: Fixed Income Securities

You are a financial consultant. At various times you have heard comments on interest rates from one of your clients. How would you respond to each comment?

- 1. Respond to: "The yield curve is upward sloping today. This suggests that the market consensus is that interest rates are expected to increase in the future."
- 2. Respond to: "I can't make any sense out of today's term structure. For short-term yields (up to three years) the spot rates increase with maturity; for maturities greater than three years but less than eight years, the spot rates decline with maturity; and for maturities greater than eight years the spot rates are virtually the same for each maturity. There is simply no theory that explains a term structure with this shape."
- 3. Respond to: "When I want to determine the market's consensus of future interest rates, I calculate the forward rates."

TRƯỜNG ĐẠI HỌC KINH TẾ Khoa/Viện: Tài chính ngân hàng

BẢNG TRỌNG SÓ NỘI DUNG HỌC PHẦN

Tên học phần: Fixed Income Securities

Mã học phần: FIB3069

Số tín chỉ: 03

Thời gian làm bài: 90

| TT | Nội dung | % | Cấp độ 1 (%) (Tái hiện - Biết) | Cấp độ 2 (%) (Tái tạo - Hiểu và Áp dụng) | Cấp độ 3 (%) (Lập luận - Phân tích và đánh giá) | Cấp độ 4 (%) (Sáng tạo) |
|----|---|-----|---|--|---|-------------------------------|
| 1 | Nội dung 1: Tổng quan về công cụ có thu nhập cố định và các rủi ro (Chương 1&2) | 24 | 10 | 14 | - | |
| 3 | Nội dung 2: Rủi ro lãi suất và cấu trúc kỳ hạn (Chương 3) | 26 | 4 | 22 | | _ |
| 4 | Nội dung 3: Phân tích tín dụng (Chương 4) | 24 | 4 | 10 | 10 | |
| 5 | Nội dung 4: Phương pháp định giá các công cụ có thu nhập cố định (Chương 5) | 26 | 2 | 14 | 10 | _ |
| | Tổng | 100 | 20 | 60 | 20 | 0 |

Ghi chú:

TRƯỜNG ĐẠI HỌC KINH TẾ Khoa/Viện: Tài chính ngân hàng

CÁU TRÚC ĐỀ THI HỌC PHẦN

Tên học phần: Fixed Income Securities

Mã học phần: FIB3069

Số tín chỉ: 03

Thời gian làm bài: 90

Mục tiêu kiểm tra/đánh giá: Đánh giá khả năng tái hiện, khả năng tái tạo và khả năng lập luận

| Nội dung | | Cấp độ 1 | | | | | | Cấp độ 2 | | | | | Cấp độ 3 | | | | | Cấp độ 4 | | | | | | | |
|------------|-------|---------------|-----|---------|-------|-------------|-----|------------|---------|------|-------------|--------|----------|------|--------|-------------|--------|----------|---------|----|----|------|------|-----|---|
| | 0/ | | (Ta | ii hiệ | n-Bié | t) | 100 | (1) | ai tạc | -Hiế | u+Áj | o dụng | g) | (Lập | luận-l | Phân | tích v | à đánh | giá) | | (: | Sáng | tạo) | - 1 | |
| | %0 | % Trắc nghiệm | | Tự luận | | Trắc nghiệm | | | Tự luận | | Trắc nghiệm | | Tự luận | | ı | Trắc nghiệm | | | Tự luận | | a | | | | |
| | Le Tr | SL | TG | Ð | SL | TG | Ð | SL | TG | Ð | SL | TG | Ð | SL | TG | Ð | SL | TG | Ð | SL | TG | Ð | SL | TG | Ð |
| Nội dung 1 | 24 | 5 | 1 | 2 | | | | 1 | 2 | 4 | 0.5 | 20 | 20 | | | | | | | | | | | | |
| Nội dung 2 | 26 | 2 | 1 | 2 | | | | 3 | 2 | 4 | 0.5 | 20 | 20 | | | | | | | | | | | | |
| Nội dung 3 | 24 | 2 | 1 | 2 | | | | | | | 0.5 | 20 | 20 | | | | 0.5 | 30 | 20 | | | | | | |
| Nội dung 4 | 26 | 1 | 1 | 2 | | | | 1 | 2 | 4 | 0.5 | 20 | 20 | | | | 0.5 | 30 | 20 | | | | | | |
| Tổng | 100 | 10 | 10 | 20 | 0 | 0 | 0 | 5 | 10 | 20 | 2 | 40 | 40 | 0 | 0 | 0 | 1 | 30 | 20 | 0 | 0 | 0 | 0 | 0 | 0 |
| % | 100% | | | 2 | 0 | | | | | 6 | 0 | | | | | 2 | 20 | | | 0 | | | | | |
| Thời gian | 90.00 | | | | | | | 50 | | | | 30 | | | | | | 0 | | | | | | | |

Ghi chú:

Thang điểm 100

Đề thi học phần Fixed Income Securities gồm 5 nội dung với 3 câu hỏi tự luận/bài tập và 15 câu hỏi trắc nghiệm

Nội dung 1: Có 05 câu hỏi trắc nghiệm cấp độ 1, 01 câu hỏi trắc nghiện cấp độ 2, và 0,5 câu hỏi tự luận

Nội dung 2: Có 02 câu hỏi trắc nghiệm cấp độ 1, 03 câu hỏi trắc nghiệm cấp độ 2 và 0,5 câu hỏi tự luận

Nội dung 3: Có 02 câu hỏi trắc nghiệm cấp độ 1, 0,5 câu hỏi tự luận cấp độ 2 và 0,5 câu hỏi tự luận cấp độ 3.

Nội dung 4: Có 01 câu hỏi trắc nghiệm cấp độ 1, 01 câu hỏi trắc nghiệm cấp độ 2, 0,5 câu hỏi tự luận cấp độ 2 và 0,5 câu hỏi tự luận cấp độ 3.

Hà Nội, ngày.... tháng.... năm 20....

Giảng viên thiết kế/Bộ môn

Chủ nhiệm Khoa

Trung tâm Đảm bảo chất lương giáo dục

TS. Nguyễn Thị Nhung

PGS.TS. Nguyễn Văn Hiệu

Dao Thi Thanh Fluyer